

AMENDMENT

In the Claims:

Please amend the claims as follows:

1. (Currently Amended) A voltage-controlled tunable filter including:
 - an input;
 - an output;
 - a plurality of resonators serially coupled to each other and to the input and the output;
 - a plurality of tunable capacitors, each of the tunable capacitors being coupled to one of the resonators;

said tunable capacitors comprising, a first electrode; a tunable dielectric film positioned on the first electrode; and a second electrode positioned on a surface of the tunable dielectric film opposite the first electrode; and

means for coupling non-adjacent ones of the resonators.
2. A voltage-controlled tunable filter according to claim 1, wherein each of the resonators includes one of:
 - a microstrip, a stripline, a coaxial line, a dielectric resonator, or a waveguide.
3. A voltage-controlled tunable filter according to claim 1, wherein the means for coupling non-adjacent ones of the resonators comprises a series connection of an additional tunable capacitor and a conductor.

4. A voltage-controlled tunable filter according to claim 1, wherein the plurality of resonators are mounted on a substrate.

5. Canceled

6. (Currently Amended) A voltage-controlled tunable filter according to claim 51, wherein the tunable dielectric film comprises:

barium strontium titanate or a composite of barium strontium titanate.

7. A voltage-controlled tunable filter according to claim 1, wherein each of the tunable capacitors comprises:

a substrate;

a tunable dielectric film positioned on the substrate; and

first and second electrodes positioned on a surface of the tunable dielectric film opposite the substrate, the first and second electrodes being separated to form a gap.

8. Canceled

9. Canceled

10. Canceled

11. Canceled

12. (Currently Amended) A voltage-controlled tunable filter according to claim 1, wherein the input includes a first microstrip line having an end capacitively coupled to a first one of the resonators; and wherein the output includes a second microstrip line having an end capacitively coupled to a second one of the resonators.

13. A voltage-controlled tunable filter according to claim 1, wherein each of the resonators comprises a microstrip line.

14. A voltage-controlled tunable filter according to claim 13, wherein the microstrip lines are positioned parallel to each other on a substrate.

15. A voltage-controlled tunable filter according to claim 13, wherein the coupling means comprises:

an additional microstrip line having first and second ends, each capacitively coupled to one of the resonator microstrip lines.

16. A voltage-controlled tunable filter according to claim 15, wherein coupling means further comprises:

an additional tunable capacitor connected in series with the additional microstrip line.

17. A voltage-controlled tunable filter according to claim 1, wherein each of the tunable capacitors comprises a tunable dielectric capacitor including a layer of voltage tunable dielectric material.

18. (Currently Amended) A voltage-controlled tunable filter according to claim 1, wherein the ~~layer of tunable dielectric~~ film-material comprises a material selected from the group of:

$\text{Ba}_x\text{Sr}_{1-x}\text{TiO}_3$, $\text{Ba}_x\text{Ca}_{1-x}\text{TiO}_3$, $\text{Pb}_x\text{Zr}_{1-x}\text{TiO}_3$, $\text{Pb}_x\text{Zr}_{1-x}\text{SrTiO}_3$, $\text{KTa}_x\text{Nb}_{1-x}\text{O}_3$, lead lanthanum zirconium titanate, PbTiO_3 , BaCaZrTiO_3 , NaNO_3 , KNbO_3 , LiNbO_3 , LiTaO_3 , PbNb_2O_6 , PbTa_2O_6 , $\text{KSr}(\text{NbO}_3)$ and $\text{NaBa}_2(\text{NbO}_3)_5\text{KH}_2\text{PO}_4$, and compositions thereof.

19. (Currently Amended) A voltage-controlled tunable filter according to claim 18, wherein the ~~layer of tunable dielectric~~ film-material further comprises a non-tunable component.